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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/910,104

07/20/2001

Tetsushi Kokubo

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EXAMINER

HU, KANG

ART UNIT

PAPER NUMBER

3715

MAIL DATE

DELIVERY MODE

12/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/910,104	Applicant(s) KOKUBO ET AL.	
	Examiner KANG HU	Art Unit 3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7 and 32-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7 and 32-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/20/2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/20/2008 has been entered. Claims 1, 8-31, and 38-53 have been cancelled, claims 2-7 and 32-37 are pending in this application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 2-5 and 32-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 2, 4, 32, and 34 could be nothing more than software, as such appears to be an abstract idea rather than a practical application of the idea. These claims do not result in physical transformation nor do they appear to provide a "useful, concrete, tangible result." Re claims 2, 4, 32 and 34 are directed toward systems and method of processing information, claims 2 and 32 recites "information processing apparatus, motion control apparatus, input means, motion data generating means, etc." are nothing more than software per se as none of which is physically tied to a computer storage medium, claims 4 and 34 are method of performing the steps of data manipulation within a software, in order to be considered patent eligible under 35 USC 101, a claimed process must contain a sufficient tie to a machine, article of manufacture or a composition of matter. In re Comiskey, 84 USPQ2d 1670

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(Fed. Cir. 2007). In this case, the claimed invention does not have a sufficient tie to any machine, article of manufacture or a composition of matter. The claimed method could be nothing more than a software program, claims to computer software program per se are not statutory subject matter.

Claims 3, 5, 33 and 35 are rejected for their dependency upon their respective independent claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-7 and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milanian (US 6,301,845 B1) in view of.

Milanian in view of Iu (US 5,471,252);

Re claims 2, 4, 6, 32, 34, and 36, Milanian teaches of a system, comprising: an information processing apparatus; and a motion control apparatus (col 2, lines 15-17: controlling the acoustic, olfactory, temperature, visual and physical motion virtual reality elements), wherein the information processing apparatus comprising: input means for inputting image data via a network (col 1, lines 57-60: virtual reality, visual reality); Milanian does not explicitly teach of motion vector detecting means for detecting a plurality of motion vectors in the image data; and

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motion data generating means for generating motion data as a function of the plurality of motion vectors detected in the image data; Iu teaches of motion vector detecting means for detecting a plurality of motion vectors in the image data; and motion data generating means for generating motion data as a function of plurality of motion vectors detected in the image data (col 3, Iu teaches that "when a camera moves relative to the objects being imaged, there are corresponding changes in the image. Disregarding, for the moment, the occlusion of areas and newly exposed areas, for every point of an image at time t, there exists a corresponding point in another image captured at a different time. We can connect every such pair of points by a respective straight line to yield a set of motion vectors to define a displacement field (motion vector field) as the set of these vectors projected on the image plane. The purpose of motion vector field estimation is to estimate such a motion vector field from an observed image sequence. This motion vector may then be used for various types of image processing that are useful in such fields as computer vision, the motion compensated coding of moving images, noise reduction and frame-rate conversion." And col 12, lines 12-32: "another system which can use data representing a motion vector field to an advantage is shown in Fig 9, this figure is a block diagram of robot arm control system. It includes a robot arm and a camera which scans the work area of the arm. Image data from the camera is applied to a memory and, from the memory to a processor system, which generates the motion vector data, and motion vector field data is applied to a robot arm controller which uses this data, as well as data from the robot arm to operate the arm in its work area." It would have been prima obvious to combine the teachings of Milanian and Iu to use known methods of detecting motion vectors from image data to produce motion data. Milanian further teaches of ID generating means for generating an ID corresponding to a set of image data input

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via said input means and the motion data generated by said motion data generating means (col 1, lines 45-67, col 2, lines 14-25, lines 30-35: cues synchronized with image); and transmitting means for transmitting the image data, the motion data, and the ID data, in a mutually related fashion, to a second apparatus via said network (col 7, lines 49-67); and where in the motion control apparatus comprising: a receiving unit for receiving the image data, the motion data, and the ID data, and a motion presenting unit for outputting an image and motion as a function of the received image data, ID data, and motion data (outputting synchronized images and motion in response to cues embedded in the special effects control memory (col 7, lines 60-65)). It would have been prima facie obvious at the time of invention to combine the teachings of Milanian and Iu to detect the motion vector via image data and generate motion data to the players by using known methods to accomplish the same results.

Milanian in view of McMullan, Jr et al. (US 5,654,746)

Re claims 3, 5, 7, 33, 35, and 37, Milanian and Iu combined does not teach of information processing apparatus further comprising: charging means for charging a total fee include a fee for use of said information processing apparatus and a fee for use of the second apparatus; and data generating means for generating data indicating the amount of fee for use of the second apparatus, included in said total fee charged by said charging means. McMullan discloses an amusement system and various ways to charge for services. It would have been prima facie obvious at the time of the invention to obtain a payment method for charging the user a fee for the use of generating motion vector and produce motion data.

Response to Arguments

6. Applicant's arguments filed 8/20/2008 have been fully considered but they are not persuasive.

Applicant has argued that the independent claims satisfies the statutory subject matter requirement set forth by USC 101, the examiner respectfully disagrees. The applicant has cited paragraph [0002] in support of the statutory subject matter, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The data structure not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760. Re claims 2, 4, 32 and 34 are directed toward systems and method of processing information, claims 2 and 32 recites "information processing apparatus, motion control apparatus, input means, motion data generating means, etc." are nothing more than software per se as none of which is physically tied to a computer storage medium, claims 4 and 34 are method of performing the steps of data manipulation within a software

Applicant's argument toward the U.S.C. 103(a) rejection has been carefully considered but they are not persuasive. Re claim 2, the applicant states that the combination of Milanian and Iu does

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not teach of a motion presenting unit for outputting an image and motion as a function of the received image data, ID data, and motion data. The examiner respectfully disagree and point to col 2, lines 15-17: controlling the acoustic, olfactory, temperature, visual and physical motion virtual reality elements and col 1, lines 57-60: virtual reality, visual reality. What Iu fails to teach is the motion vector detecting means addressed in claim 2.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KANG HU whose telephone number is (571)270-1344. The examiner can normally be reached on 8-5 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on 571-262-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Kang Hu/

Examiner, Art Unit 3715

/XUAN M. THAI/

Supervisory Patent Examiner, Art Unit 3715